BISS Biodiversity Information Science and Standards

Biodiversity Information Science and Standards 3: e37324
doi: 10.3897/biss.3.37324

OPEN ACCESS

Conference Abstract

An alliance for biodiversity knowledge: Rethinking international collaboration in biodiversity informatics

Donald Hobern[‡,§], Joseph T Miller[‡]

‡ Global Biodiversity Information Facility, Copenhagen, Denmark
§ International Barcode of Life, Canberra, Australia

Corresponding author: Donald Hobern (dhobern@gmail.com)

Received: 14 Jun 2019 | Published: 21 Jun 2019

Citation: Hobern D, Miller J (2019) An alliance for biodiversity knowledge: Rethinking international collaboration in biodiversity informatics. Biodiversity Information Science and Standards 3: e37324.
https://doi.org/10.3897/biss.3.37324

Abstract

There has been major progress over the last two decades in digitising historical knowledge of biodiversity and in making biodiversity data freely and openly accessible. Interlocking efforts bring together international partnerships and networks, national, regional and institutional projects and investments and countless individual contributors, spanning diverse biological and environmental research domains, government agencies and non-governmental organisations, citizen science and commercial enterprise. However, current efforts remain inefficient and inadequate to address the global need for accurate data on the world's species and on changing patterns and trends in biodiversity. Significant challenges include imbalances in regional engagement in biodiversity informatics activity, uneven progress in data mobilisation and sharing, the lack of stable persistent identifiers for data records, redundant and incompatible processes for cleaning and interpreting data and the absence of functional mechanisms for knowledgeable experts to curate and improve data.

The first Global Biodiversity Informatics Conference (GBIC) in 2012 delivered the Global Biodiversity Informatics Outlook (GBIO, Hobern et al. 2012), an architectural vision for the major components of a distributed global infrastructure for biodiiversity information, but

© Hobern D, Miller J. This is an open access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

realigning the work of existing organisations and projects to achieve this vision remains challenging. Recognising the need for greater alignment between efforts at all scales, the Global Biodiversity Information Facility (GBIF) convened the second Global Biodiversity Informatics Conference (GBIC2) in July 2018 to propose a coordination mechanism for developing shared roadmaps for biodiversity informatics. GBIC2 attendees reached consensus on the need for a global *alliance for biodiversity knowledge*, learning from examples such as the Global Alliance for Genomics and Health (GA4GH) and the open software communities under the Apache Software Foundation. These initiatives provide models for multiple stakeholders with decentralised funding and independent governance to combine resources and develop sustainable solutions that address common needs.

GBIF was asked to coordinate next steps following GBIC2, including publication of a paper, **Connecting data and expertise: a new alliance for biodiversity knowledge** (Hobern et al. 2019). The supplementary materials for the paper include PDF brochures explaining the concept in eleven languages. During 2019, GBIF is coordinating further consultations to establish an optimal model for the governance and operations of the *alliance* and to advance collaboration around some of the major building blocks of the GBIO. Collaboration at this scale, and across all aspects of biodiversity information, is essential for effective delivery of important information products such as the Essential Biodiversity Variables and the planned pan-European natural history collections infrastructure, DiSSCo.

This presentation explains the goals for this alliance and updates on progress during 2019 in operationalising the concept.

Keywords

alliance for biodiversity knowledge, biodiversity informatics, infrastructure, standards, capacity enhancement, international cooperation

Presenting author

Joseph T. Miller

Presented at

Biodiversity_Next 2019

References

- Hobern D, Apostolico A, Arnaud E, Bello JC, Canhos D, Dubois G, Field D, Alonso García E, Hardisty A, Harrison J, Heidorn B, Krishtalka L, Mata E, Page R, Parr C, Price J,

Willoughby S (2012) Global Biodiversity Informatics Outlook: Delivering biodiversity knowledge in the information age. Global Biodiversity Information Facility https://doi.org/10.15468/6JXA-YB44

- Hobern D, Baptiste B, Copas K, Guralnick R, Hahn A, van Huis E, Kim E, McGeoch M, Naicker I, Navarro L, Noesgaard D, Price M, Rodrigues A, Schigel D, Sheffield C, Wieczorek J (2019) Connecting data and expertise: a new alliance for biodiversity knowledge. Biodiversity Data Journal 7 https://doi.org/10.3897/bdj.7.e33679